

EPA Receives Isolation Barrier Alternatives Assessment

Isolation Barrier Alternatives Assessment Delivered to EPA

EPA Region 7 recently received the isolation barrier alternatives report from the Potentially Responsible Parties (PRPs), and has begun to review its contents. This report provides preliminary analysis of the possible isolation barrier alignments, including bird mitigation plans for each alignment.

In keeping with our August 13, 2014, letter to the Missouri Attorney General, EPA has provided copies of the report to the Missouri Attorney General, the U.S. Army Corps of Engineers and the St. Louis Airport Authority for their review and evaluation. Each partner plays an important role in this effort given the technical complexities of the construction project and the public safety concerns related to bird strikes. In partnership with these organizations, EPA is working diligently to develop a solution to address concerns about the subsurface smoldering event (SSE) coming into contact with the radiologically impacted material (RIM).

The objective of the proposed isolation barrier is to prevent a potential impact of the subsurface smoldering event with the buried radiologically impacted material in OU-1 of the West Lake Landfill. Each evaluation looks at a number of factors, including: waste excavation and relocation volume estimates, preliminary design and construction schedules, potential for odor release, potential to attract birds, potential risks associated with each alternative, and potential advantages and disadvantages of each alternative.

A total of four alternatives were assessed, including a "no action" alternative to provide a baseline assessment, the installation of an "air gap" (open trench) to separate the SSE from the RIM, installation of an inert barrier to separate the SSE from the RIM, and a heat extraction barrier.

Not including the "no action" alternative, the report details four potential alternatives, listed in the report as Options 1-4:

Option 1 – Installation of an inert barrier located along the northern boundary of the North Quarry area of the Bridgeton Landfill / southern boundary of Area 1;

Option 2 – Excavation of an air gap (open trench) barrier down through the bottom of the waste materials in the northern portion of the North Quarry area of the Bridgeton Landfill;

Option 3 – Installation of an inert barrier located within the northern portion of the North Quarry area of the Bridgeton Landfill, south of the currently identified known occurrences of RIM;

Option 4 – Installation of a heat extraction barrier located along the southern portion of Area 1 / northern portion of the North Quarry area of the Bridgeton Landfill.

The report provides an analysis of each option and potential advantages and disadvantages associated with each. A comparative summary of the alternatives and conclusions are also provided in the report.

The report is currently under review and evaluation by our partners at the USACE and the St. Louis Airport Authority. If after a robust engineering review and analysis by the USACE and the Airport, no additional changes are necessary to the preliminary alternative assessments, EPA may then select one of the options and direct the PRPs to further develop construction design plans.

EPA Region 7 appreciates and supports the work of the MDNR and the State of Missouri, through its legal orders, in directing Republic Services to monitor and contain the SSE in the Bridgeton Landfill portion of the West Lake Landfill Superfund Site. The additional temperature data and corrective action assessment recently required by the MDNR will support both their efforts to monitor the SSE, as well as EPA and USACE efforts to evaluate barrier alternatives. EPA is in regular communication with MDNR about their efforts to closely monitor the SSE.

EPA remains committed to the protection of public health. It is important to note that currently available scientific data indicates there are no off-site exposures to contaminants from the West Lake Landfill Site.

The Isolation Barrier Alternatives Assessment report is currently available on EPA Region 7's West Lake Landfill website: http://www.epa.gov/region7/cleanup/west_lake_landfill/

